



What drives the car fleet electrification?

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a project for The Finnish Climate Panel

- Cooperation between 3 organisations
 - VATT Institute for Economic Research
 - Tampere University of Technology
 - University of Oulu
- Project in 3 parts
 - financial drivers & guidance
 - **use cases & charging infrastructure**
 - electricity markets and storage

use cases

- Studies show that people tend to drive more with an electric car compared to conventional car
 - Lower use costs (due to taxation and electricity prices)
 - Electric car may seem more attractive with people who travel more
- In Finland, average age of electric car buyer is lower compared to conventional car buyers
 - International studies show same kind of results
 - Potential future buyers/users come from this age group
 - More interest towards EV:s
 - could lead to a sales boost in EV:s
 - same applies to use of shared vehicles

charging infrastructure

- Most of the charging needs can be solved with chargers at home
- Public charging points are important for public acceptance
- Charging is seen as a substitute for refuelling, even though it is not
 - Charging can be done during parking, shopping, etc...
- About 85 % of trips in Finland could be made using current EV:s and charger network (Melliger 2017)



changes in taxation

- Car fleet electrification will have a huge effect of yearly taxation
 - Biggest change comes from fuel tax and the tax of driving power
 - Affects the car tax for first registration as well
- Changes in taxation won't always actually lower the emissions
 - Results from France show that taxation support for lower emission vehicles actually increased the emissions
 - "Rebound effect"

other support methods

- Direct support to pricing has a clear effect on demand but the effect is mostly inside same prize/size –group
- In Norway, support towards charging infrastructure has been the most effective method
- EV:s on bus lanes or lower congestion charges also have an effect, but it is not a permanent solution
- Lack of information means less EV:s



- Two policy briefs coming soon (in Finnish)

Thank you!



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